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December 10, 2018

BY ECFS

Marlene Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: **Elefante Group Notice of Oral *Ex Parte* Presentation; RM-11809; GN Docket Nos. 17-183, 14-177, WT Docket No. 10-112, and File No. SAT-LOA-20161115-00117**

Dear Ms. Dortch:

On December 6, 2018, Christopher DeMarche, Chief Operating Officer, and Daniel Vortherms, Vice President Engineering, of Elefante Group, Inc. ("Elefante Group"), Edward A. Yorkgitis, Jr., of Kelley Drye & Warren LLP, on behalf of Elefante Group, and Scott Kotler and Dr. Michael Hicks of Lockheed Martin Corporation ("Lockheed Martin") (collectively, the "Representatives") met with Julie Knapp, Ira Keltz, Walter Johnston, Jamison Prime, and Michael Ha of the Office of Engineering and Technology ("OET") and Ian Cook, Army Fellow, to discuss the status of Elefante Group's program by which it will provide persistent Stratospheric-Based Communications Services ("SBCS"). (Mr. Kotler and Dr. Hicks participated by telephone.)

In the meeting, Messrs DeMarche and Vortherms described current development and testing of a number of the core technologies for the Elefante Group airships and communications payloads. They explained some of the engagement with vendors and Elefante Group's receipt of and responses to growing international interest in the solutions Elefante Group will offer. The Representatives responded to numerous questions posed by the Commission staff during the meeting regarding the technologies. The Representatives also reiterated that, while other SBCS operators may choose to pursue a different business plan, Elefante Group's current intentions are to offer wholesale fixed communications services to other providers using radios for which they are licensed on the ground and on platforms that Elefante Group will own. Elefante Group plans

to provide backhaul services for both urban and rural network applications (*e.g.*, densification and initial roll out), enterprise wide area networks (*e.g.*, for municipal governments, schools, banks, commercial enterprises), and residential and commercial fixed broadband service.

Elefante Group reiterated that its SBCS business case is founded upon delivery of 1 Tbps capacity to user terminals in each direction from its Stratospheric Platform Stations ("STRAPS") to User Terminals ("UTs") within an airship's nominal 70 km radius footprint. To achieve that, Elefante Group reiterated its proposal in its pending Petition for Rulemaking to access, on a co-primary and shared basis, the 21.5-23.6 and 25.25-27.5 GHz bands (for UT links) and the 71-76 and 81-86 GHz bands (for feeder links connecting terrestrial networks to the STRAPS). The Representatives briefly reviewed their ongoing, constructive discussions with other spectrum stakeholders in these bands, both non-Federal and Federal. Elefante Group closed the meeting by urging OET and the Commission to issue a further notice of proposed rulemaking inclusive of all of these bands to enable adoption of a complete regulatory framework in the United States for SBCS.

A copy of the written presentation materials used in the meeting with OET is attached hereto.

Pursuant to Section 1.1206(b) of the Commission's Rules, this letter is being filed electronically.

Respectfully submitted,

Edward A. Yorkgitis, Jr.

Counsel to Elefante Group, Inc.

cc: Julie Knapp
Ira Keltz
Walter Johnston
Jamison Prime
Michael Ha
Ian Cook

Elefante Group Stratospheric-Based Communications Service Update

Meeting with the Office of Engineering and Technology

December 6, 2018

Agenda

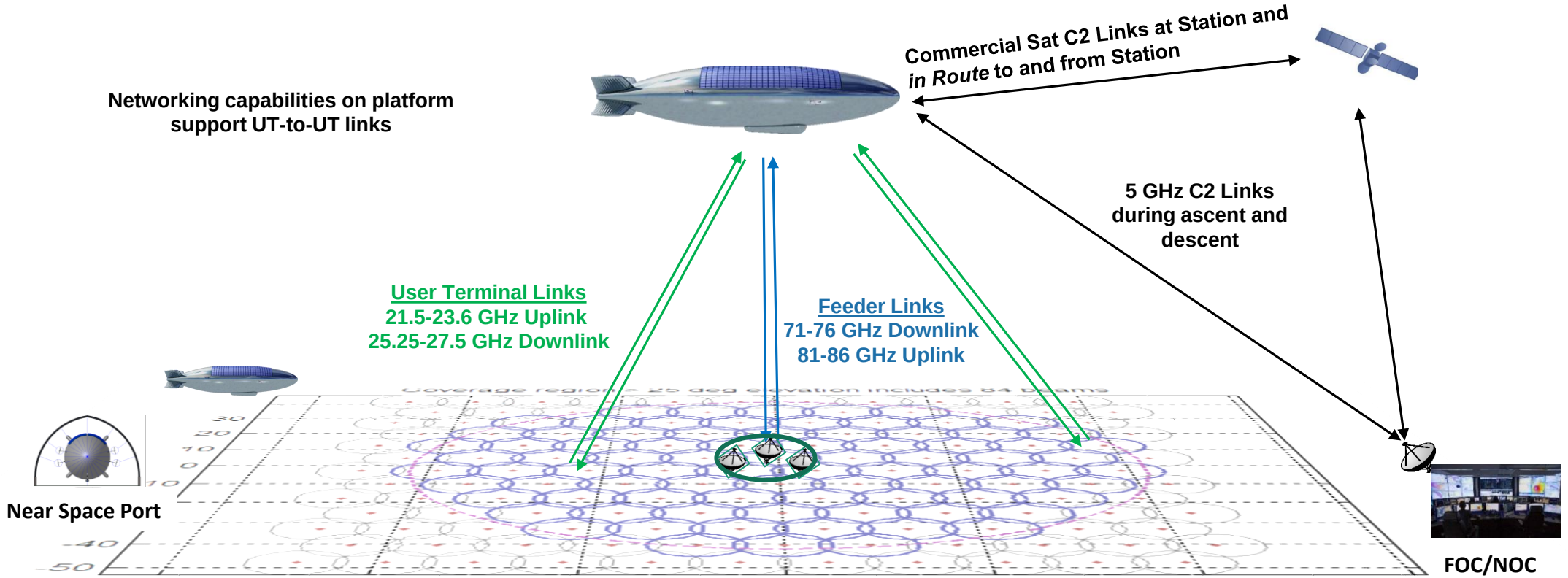
Development and testing key technologies for airship and payload

Engagement of key vendors

Responding to international interest

In discussions with Federal and non-Federal stakeholders

Elefante Stratospheric-Based Communications Architecture



Not to scale

Propose co-primary spectrum designations or allocations, as needed, for SBCS in both Ka- and E-Bands within the Fixed Services

Airship Development

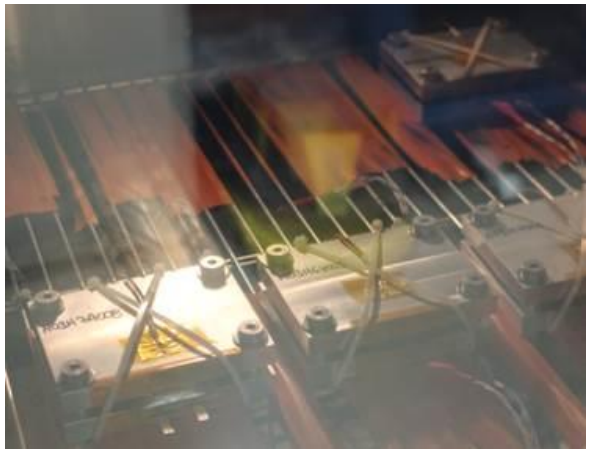
Ongoing Alpha & Beta design

Sample of recent activities include:

- Maturation of airship design
- Extensive testing of core technologies
- Hull structural analysis
- Computational fluid dynamics and thermal analyses
- Turn analysis and turbulence response modeling
- Minimum speed thermal analysis
- Advanced power systems
- Vehicle management system

Pre-manufacturing preparations

- Preparation of air dock for production
- Expansion of production support labs
- Long lead discussion with envelope manufacturers
- Near-space port design



Battery Cells Under Test

Helium Cell Testing

Payload Development

Sample of recent activities include:

- Airship payload interface system
  - Structural analyses, effects of airship motion, windscreen and thermal loading
- Long lead development such as
  - Resource management
  - Switching components
- Working with waveform vendors, antenna suppliers, e-band equipment manufacturers

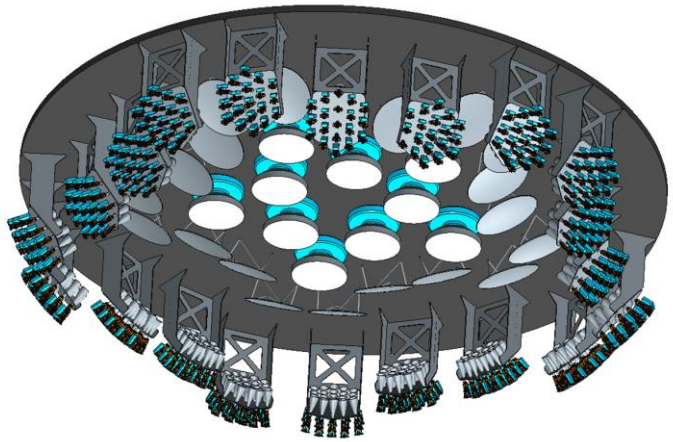
Testing antennas (performance versus mass)

Mass and power refinements

Continued development of payload switching components including production design and power reduction

Test plan being refined including use of experimental licenses

Investigating sensors for burgeoning government agency interest



Luneburg Lens in Test

Stakeholder Discussions to Refine Compatibility Conditions

FWCC – Fixed services in 21.5-23.6 GHz and 71-76/81-86 GHz

- Constructive discussions and sharing of information to address stated concerns re both Ka- and E-Bands

Audacy – ISS in 23 GHz Band

- Welcoming exploration whether common ground can be found

Iridium – ISS in 23 GHz Band

- Shared compatibility analysis in advance of Petition; Iridium hasn't advanced any concerns

Mobile Industry – Mutual interest in 26 GHz Band

- Welcoming engagement on issues of compatibility

NOAA – EESS in 22 GHz, 25.5-27.5 GHZ, and 86-92 GHz Bands

- Last met in late October; looking to complete work on compatibility analyses and sharing conditions by early Q1 2019

NASA – Scientific Services and ISS/TDRSS in 21/22 and 26 GHz

- Reengaging on compatibility analyses and sharing conditions in Cleveland next week

DOD – AMS below 21.5 GHz and in the 26 GHz Band

- Have reached understanding regarding compatibility with AMS operating below 21.5 GHz; have shared Elefante Group and Lockheed Martin 26 GHz STRAPS and mobile compatibility studies with DOD CIO's office; planning to meet with SMOs on compatibility analyses

NTIA – Compatibility studies generally

- In discussions with OSM regarding compatibility studies generally, including mobile compatibility with incumbents

NSF and NRAO – RAS in 23.6-24.0 and 76-94 GHz Bands

- Have proposed solutions for compatibility

Path to Timely SBCS Rules

The 22-23 and 26 GHz Bands are essential for the realization of high capacity, low latency, 1 Tbps SBCS in the United States

SBCS will help accelerate next generation deployments, improve broadband and 5G access in “urban deserts,” and help close the digital divide in rural America, among other benefits

To adopt rules for SBCS, Elefante Group urges the Commission to expeditiously issue a Further NPRM in the *Spectrum Frontiers* proceeding to expand consideration of the 26 GHz Band and to bring in additional bands – *i.e.,* 22-23 GHz and E-Bands – to allow for adoption of a complete regulatory framework for deployment of SBCS in the Fixed Services on a co-primary basis

Questions

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